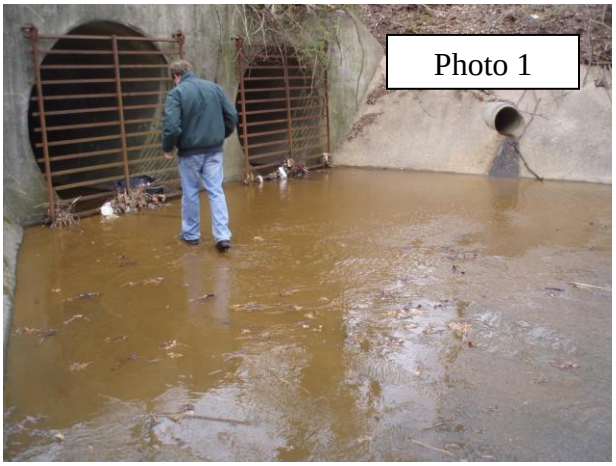
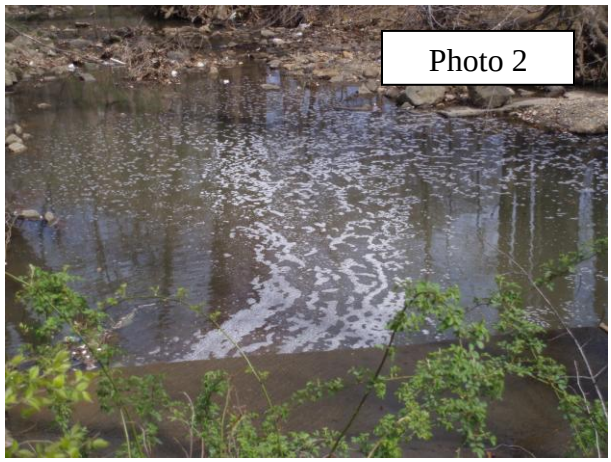
Group Exercise 2 – Illicit Discharge Investigations

Your group has been assigned to one of three illicit discharge scenarios. Each scenario begins with some described qualitative and quantitative characteristics of an outfall. Your job is to determine next steps for identifying the source of the illicit discharge(s). Prepare to briefly report back on the identified next steps determined by your group.

Scenario 1

Your are in the office, responding to e-mail and enjoying a mochachino when a citizen calls in to report a large amount of brown water coming from an outfall near her house. You have an inspector in the vicinity and have her go check it out. She sends you Photo 1 from her iphone (along with a picture of her dog) and messages you that she will be driving to some nearby construction sites to determine a source. She does not see anything unusual. She returns to the outfall and sees that the sediment discharge has stopped, however, a large amount of suds are observed coming from one of the two 72" reinforced concrete pipes. She sends you Photo #2. She had some detergent test kits with her so she took a measurement – the results were 3.0 mg/l. She wants to know what she should do next.





Identify some next steps for the inspector.

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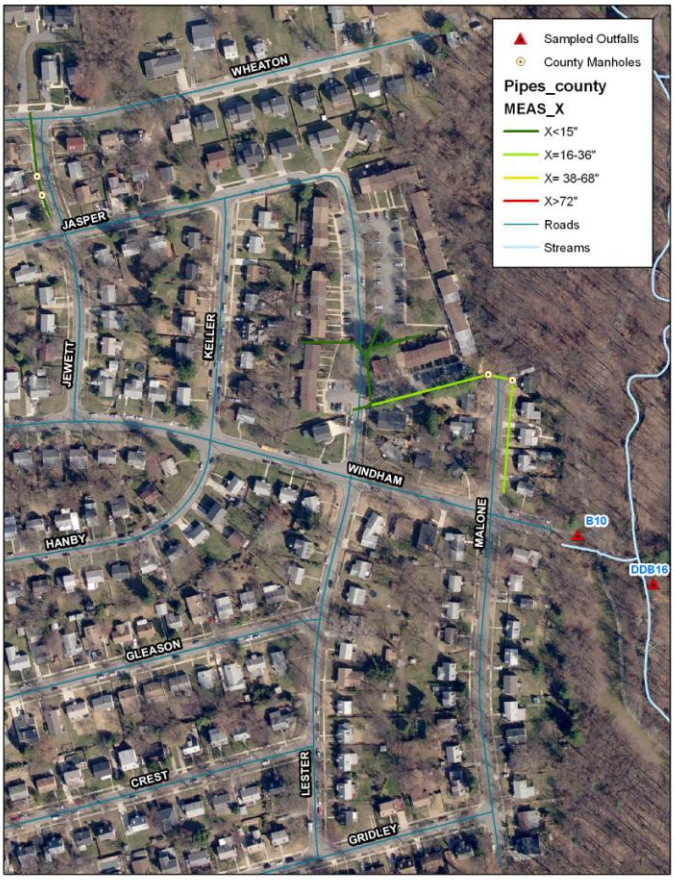
Scenario 2

While conducting routine outfall screening in the Fox River watershed, staff obtained a hit for ammonia (0.35 mg/l) at outfall B10. Since this concentration was above the program's established threshold of 0.2 mg/l, they began tracking right away. They will also use the opportunity to complete some needed stormwater infrastructure mapping of the area. Flow was tracked to the intersection of Windham Ln. and Jewett St. but no other manholes could be found above that point. While out, staff were approached by two different neighborhood residents, each reporting seeing sump discharges into the gutter from houses at the top of the hill, sometimes with bubbles suggesting soap in the discharge. Staff also observed an unusually large amount of ice in front of one home.



Identify some next steps for the investigation from this point.

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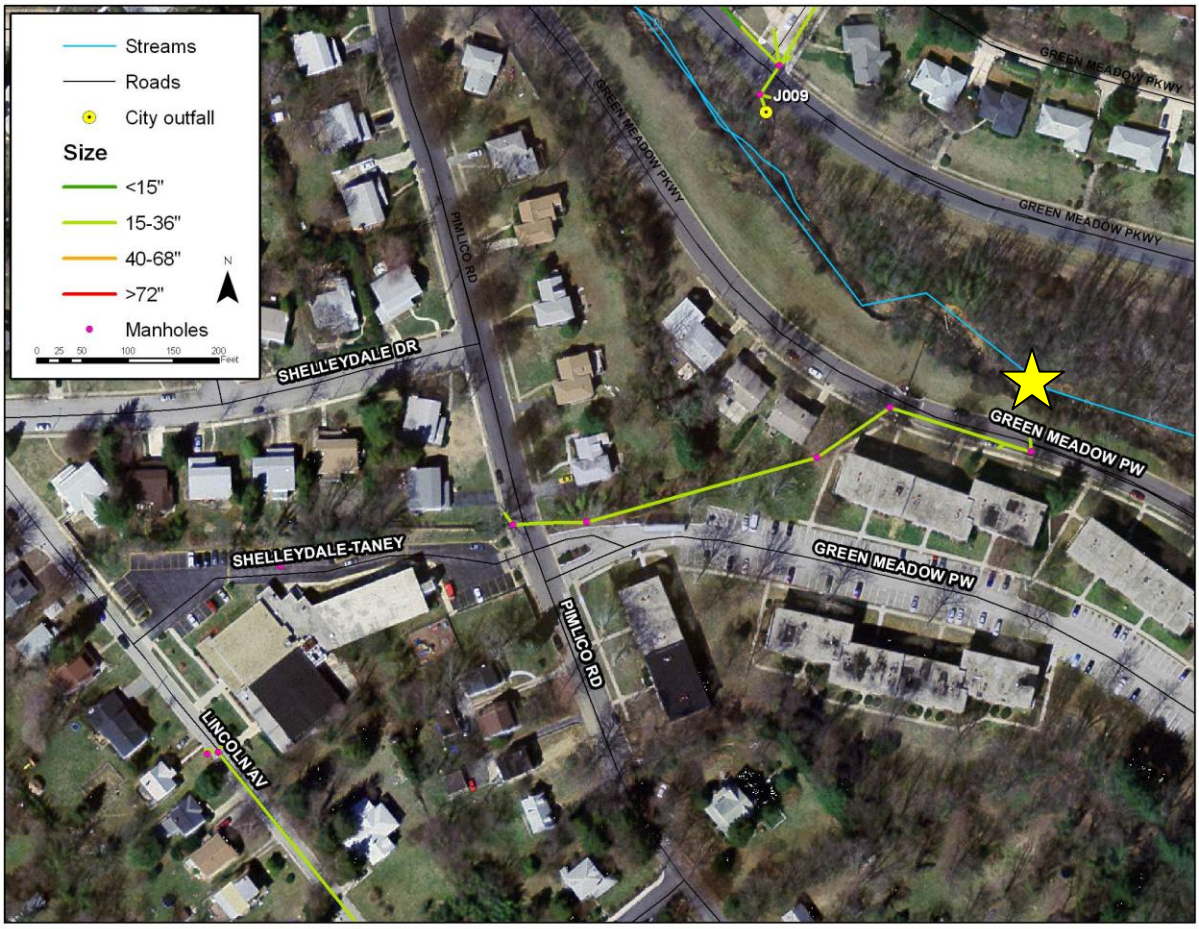
Scenario 3

A citizen leaves a message on the 311 emergency hotline with reports of a sewer smell behind her house on Green Meadow Parkway. Following your nose, you scamble down a ravine where you find an outfall with dry weather flow, indicated by the star in the map below. Of course you have your ammonia meter with you so you grab a measurement – the reading is above the detection limit of the instrument (9.99 mg/l).



What do you do next?

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